

AMENDMENTS TO THE CLAIMS

Claim 1. (Previously Presented)

A method for facilitating publish/subscribe communication within a network switch, comprising:

receiving a subscription request by a communication coordinator within one of a plurality of line modules to receive publications made to one or more event names, said subscription request comprising an event expression that includes a namespace that can be correlated to a plurality of different event names;

accessing within a control module connected to said plurality of line modules a set of information pertaining to a publisher, said information comprising a particular event name to which said publisher publishes; and

resolving said event expression within said control module to determine whether said particular event name constitutes a match for said event expression, thereby determining whether said subscription request is a request to receive one or more publications made to said particular event name.

Claim 2. (Original)

The method of claim 1, wherein said event expression comprises one or more wildcard indicators.

Claim 3. (Original)

The method of claim 2, wherein resolving said event expression comprises:
performing pattern matching between said event expression and said particular event
name.

Claim 4. (Previously Presented)

The method of claim 1, wherein said namespace is a hierarchical namespace.

Claim 5. (Original)

The method of claim 4, wherein said hierarchical namespace comprises one or more
wildcard indicators in one or more hierarchical levels of said hierarchical namespace.

Claim 6. (Previously Presented)

The method of claim 1, wherein said subscription request comprises a set of information
pertaining to a subscriber, and wherein said method further comprises:

in response to a determination that said particular event name constitutes a match for said
event expression, providing said set of information pertaining to said subscriber to a
communication coordinator associated with said publisher, said communication coordinator
being one of a plurality of communication coordinators provided on each of said plurality of line
modules within said switch.

Claim 7. (Original)

The method of claim 6, further comprising:

accessing a set of information pertaining to a second publisher, said set of information pertaining to said second publisher comprising a second particular event name to which said second publisher publishes;

resolving said event expression to determine whether said second particular event name constitutes a match for said event expression, thereby determining whether said subscription request is a request to receive one or more publications made to said second particular event name; and

in response to a determination that said second particular event name constitutes a match for said event expression, providing said set of information pertaining to said subscriber to a second communication coordinator associated with said second publisher.

Claim 8. (Original)

The method of claim 7, wherein said first particular event name and said second particular event name are different event names.

Claim 9. (Previously Presented)

A method for facilitating publish/subscribe communication within a network switch, comprising:

receiving by a communication coordinator within one of a plurality of line modules a publication announcement indicating a desire to publish to a particular event name;

accessing within a control module connected to said plurality of line modules a set of information pertaining to a subscriber, said information comprising an event expression which may be resolved to match a plurality of different event names; and

resolving said event expression within said control module to determine whether said particular event name constitutes a match for said event expression, thereby determining whether said subscriber should receive one or more publications made to said particular event name.

Claim 10. (Original)

The method of claim 9, wherein said event expression comprises one or more wildcard indicators.

Claim 11. (Original)

The method of claim 10, wherein resolving said event expression comprises:
performing pattern matching between said event expression and said particular event name.

Claim 12. (Original)

The method of claim 9, wherein said event expression comprises a hierarchical namespace.

Claim 13. (Original)

The method of claim 12, wherein said hierarchical namespace comprises one or more wildcard indicators in one or more hierarchical levels of said hierarchical namespace.

Claim 14. (Original)

The method of claim 9, further comprising:

in response to a determination that said particular event name constitutes a match for said event expression, providing said set of information pertaining to said subscriber to a sender of said publication announcement.

Claim 15. (Original)

The method of claim 14, further comprising:

receiving a second publication announcement indicating a desire to publish to a second particular event name;

accessing said set of information pertaining to said subscriber;

resolving said event expression to determine whether said second particular event name constitutes a match for said event expression, thereby determining whether said subscriber should receive one or more publications made to said second particular event name; and

in response to a determination that said second particular event name constitutes a match for said event expression, providing said set of information pertaining to said subscriber to a sender of said second publication announcement.

Claim 16. (Original)

The method of claim 15, wherein said first particular event name and said second particular event name are different event names.

Claim 17. (Previously Presented)

An apparatus for facilitating publish/subscribe communication within a network switch, comprising:

a communication coordinator for receiving a subscription request within a line module to receive publications made to one or more event names, said subscription request comprising an event expression that includes a namespace that can be correlated to a plurality of different event names;

a namespace server located within a control module for accessing a set of information pertaining to a publisher, said information comprising a particular event name to which said publisher publishes; and

wherein said namespace server resolves said event expression to determine whether said particular event name constitutes a match for said event expression, thereby determining whether said subscription request is a request to receive one or more publications made to said particular event name.

Claim 18. (Original)

The apparatus of claim 17, wherein said event expression comprises one or more wildcard indicators.

Claim 19. (Original)

The apparatus of claim 18, wherein the mechanism for resolving said event expression comprises:

a mechanism for performing pattern matching between said event expression and said particular event name.

Claim 20. (Previously Presented)

The apparatus of claim 17, wherein said namespace is a hierarchical namespace.

Claim 21. (Original)

The apparatus of claim 20, wherein said hierarchical namespace comprises one or more wildcard indicators in one or more hierarchical levels of said hierarchical namespace.

Claim 22. (Previously Presented)

The apparatus of claim 17, wherein said subscription request comprises a set of information pertaining to a subscriber, and wherein:

in response to a determination that said particular event name constitutes a match for said event expression, said set of information pertaining to said subscriber is provided to a communication coordinator associated with said publisher, said communication coordinator being one of a plurality of communication coordinators provided on each of said plurality of line modules within said switch.

Claim 23. (Original)

The apparatus of claim 22, further comprising:

a mechanism for accessing a set of information pertaining to a second publisher, said set of information pertaining to said second publisher comprising a second particular event name to which said second publisher publishes;

a mechanism for resolving said event expression to determine whether said second particular event name constitutes a match for said event expression, thereby determining whether said subscription request is a request to receive one or more publications made to said second particular event name; and

a mechanism for providing, in response to a determination that said second particular event name constitutes a match for said event expression, said set of information pertaining to said subscriber to a second communication coordinator associated with said second publisher.

Claim 24. (Original)

The apparatus of claim 23, wherein said first particular event name and said second particular event name are different event names.

Claim 25. (Previously Presented)

An apparatus for facilitating publish/subscribe communication within a switch network, comprising:

a communication coordinator located within a line module for receiving a publication announcement indicating a desire to publish to a particular event name; and

a namespace server located within a control module for accessing a set of information pertaining to a subscriber, said information comprising an event expression which may be resolved to match a plurality of different event names;

wherein said namespace server resolves said event expression to determine whether said particular event name constitutes a match for said event expression, thereby determining whether said subscriber should receive one or more publications made to said particular event name.

Claim 26. (Original)

The apparatus of claim 25, wherein said event expression comprises one or more wildcard indicators.

Claim 27. (Original)

The apparatus of claim 26, wherein the mechanism for resolving said event expression comprises:

a mechanism for performing pattern matching between said event expression and said particular event name.

Claim 28. (Original)

The apparatus of claim 25, wherein said event expression comprises a hierarchical namespace.

Claim 29. (Original)

The apparatus of claim 28, wherein said hierarchical namespace comprises one or more wildcard indicators in one or more hierarchical levels of said hierarchical namespace.

Claim 30. (Original)

The apparatus of claim 25, further comprising:

a mechanism for providing, in response to a determination that said particular event name constitutes a match for said event expression, said set of information pertaining to said subscriber to a sender of said publication announcement.

Claim 31. (Original)

The apparatus of claim 30, further comprising:

a mechanism for receiving a second publication announcement indicating a desire to publish to a second particular event name;

a mechanism for accessing said set of information pertaining to said subscriber;

a mechanism for resolving said event expression to determine whether said second particular event name constitutes a match for said event expression, thereby determining whether said subscriber should receive one or more publications made to said second particular event name; and

a mechanism for providing, in response to a determination that said second particular event name constitutes a match for said event expression, said set of information pertaining to said subscriber to a sender of said second publication announcement.

Claim 32. (Original)

The apparatus of claim 31, wherein said first particular event name and said second particular event name are different event names.

Claim 33. (Previously Presented)

A computer readable medium comprising instructions which, when executed by one or more processors, cause the one or more processors to facilitate publish/subscribe communication within a network switch, said computer readable medium comprising:

instructions by a communication coordinator for causing one or more processors within one of a plurality of line modules to receive a subscription request to receive publications made to one or more event names, said subscription request comprising an event expression which may be resolved to match a plurality of different event names;

instructions for causing one or more processors within a control module, connected to said plurality of line modules, to access a set of information pertaining to a publisher, said information comprising a particular event name to which said publisher publishes; and

instructions for causing said one or more processors within said control module to resolve said event expression to determine whether said particular event name constitutes a match for

said event expression, thereby determining whether said subscription request is a request to receive one or more publications made to said particular event name.

Claim 34. (Original)

The computer readable medium of claim 33, wherein said event expression comprises one or more wildcard indicators.

Claim 35. (Original)

The computer readable medium of claim 34, wherein the instructions for causing one or more processors to resolve said event expression comprises:

instructions for causing one or more processors to perform pattern matching between said event expression and said particular event name.

Claim 36. (Original)

The computer readable medium of claim 33, wherein said event expression comprises a hierarchical namespace.

Claim 37. (Original)

The computer readable medium of claim 36, wherein said hierarchical namespace comprises one or more wildcard indicators in one or more hierarchical levels of said hierarchical namespace.

Claim 38. (Original)

The computer readable medium of claim 33, wherein said subscription request comprises a set of information pertaining to a subscriber, and wherein said computer readable medium further comprises:

instructions for causing one or more processors to provide, in response to a determination that said particular event name constitutes a match for said event expression, said set of information pertaining to said subscriber to a communication coordinator associated with said publisher.

Claim 39. (Original)

The computer readable medium of claim 38, further comprising:

instructions for causing one or more processors to access a set of information pertaining to a second publisher, said set of information pertaining to said second publisher comprising a second particular event name to which said second publisher publishes;

instructions for causing one or more processors to resolve said event expression to determine whether said second particular event name constitutes a match for said event expression, thereby determining whether said subscription request is a request to receive one or more publications made to said second particular event name; and

instructions for causing one or more processors to provide, in response to a determination that said second particular event name constitutes a match for said event expression, said set of information pertaining to said subscriber to a second communication coordinator associated with said second publisher.

Claim 40. (Original)

The computer readable medium of claim 39, wherein said first particular event name and said second particular event name are different event names.

Claim 41. (Previously Presented)

A computer readable medium comprising instructions which, when executed by one or more processors, cause the one or more processors to facilitate publish/subscribe communication within a network switch, said computer readable medium comprising:

instructions by a communication coordinator for causing one or more processors within one of a plurality of line modules to receive a publication announcement indicating a desire to publish to a particular event name;

instructions for causing one or more processors within a control module, connected to said plurality of line modules, to access a set of information pertaining to a subscriber, said information comprising an event expression which may be resolved to match a plurality of different event names; and

instructions for causing said one or more processors within said control module to resolve said event expression to determine whether said particular event name constitutes a match for said event expression, thereby determining whether said subscriber should receive one or more publications made to said particular event name.

Claim 42. (Original)

The computer readable medium of claim 41, wherein said event expression comprises one or more wildcard indicators.

Claim 43. (Original)

The computer readable medium of claim 42, wherein the instructions for causing one or more processors to resolve said event expression comprises:

instructions for causing one or more processors to perform pattern matching between said event expression and said particular event name.

Claim 44. (Original)

The computer readable medium of claim 41, wherein said event expression comprises a hierarchical namespace.

Claim 45. (Original)

The computer readable medium of claim 44, wherein said hierarchical namespace comprises one or more wildcard indicators in one or more hierarchical levels of said hierarchical namespace.

Claim 46. (Original)

The computer readable medium of claim 41, further comprising:
instructions for causing one or more processors to provide, in response to a determination that said particular event name constitutes a match for said event expression, said set of information pertaining to said subscriber to a sender of said publication announcement.

Claim 47. (Original)

The computer readable medium of claim 46, further comprising:
instructions for causing one or more processors to receive a second publication announcement indicating a desire to publish to a second particular event name;
instructions for causing one or more processors to access said set of information pertaining to said subscriber;
instructions for causing one or more processors to resolve said event expression to determine whether said second particular event name constitutes a match for said event expression, thereby determining whether said subscriber should receive one or more publications made to said second particular event name; and
instructions for causing one or more processors to provide, in response to a determination that said second particular event name constitutes a match for said event expression, said set of information pertaining to said subscriber to a sender of said second publication announcement.

Claim 48. (Original)

The computer readable medium of claim 47, wherein said first particular event name and said second particular event name are different event names.

Claims 49 – 60. (Cancelled)

Claim 61. (New)

The method of claim 1, wherein each of said plurality of line modules include a local table in which is stored information pertaining to a particularly one of said plurality of line modules.

Claim 62. (New)

The method of claim 1, wherein the control module includes a namespace server that includes a global table containing all local table information from each of said plurality of line modules, the namespace server using information in the global table to coordinate communication throughout the network switch.